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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ayumu Murakami

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FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

SARPONG, AKWASI

ART UNIT

PAPER NUMBER

2625

MAIL DATE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/671,725	Applicant(s) MURAKAMI, AYUMU	
	Examiner AKWASI M. SARPONG	Art Unit 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-10,12 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-10,12 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 January 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/26/2003 and 08/26/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuda et al (US 6628431 B1) in view of Tsunoda (US 4862218).

Claim 1, Masuda discloses an image reading apparatus comprising an original placement portion **(Original Bed-11)** on which an original is to be placed; **(Col. 1 Lines 25-30, Fig. 18A El 161, thus the original bed is used as a placement bed the original document to be scanned)** an optical unit configured to move relative to the original placement portion; **(Col. 1 Lines 25-33, thus the read unit moves relatively or along side with the flatbed scanner).**

a guide member that guides movement of the optical unit **((Col. 6 Lines 20-30, Fig 4A, Elem. 12 thus guide rail-12 guides optical means-2 during a scanning operation).**

wherein said optical unit includes a unit frame configured to hold an optical element, **(Col. 1 Lines 25-35 Fig. 18B El. 152 shows a reading unit which**

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comprises of the optical unit) and includes a sliding member that contacts with the guide member,

sliding portion that slides in contact with the guide member and said unit frame is formed and with a screw hole portion in which the said screw portion of said_sliding member is mounted, **(Col. 2 Lines 50-67, Fig. 21, thus the diffusion plate 255 as shown in fig. 21 is part of the flatbed scanner which comprises of the optical part or means of the scanner and therefore as clearly stated can be hold or tightened or fixed together with a screw)**

the screw portion being plastically deformable and screwed into the screw hole while being plastically deformed. **(Col. 2 Lines 65-67, thus it is inherent that the screw portion of the sliding member will be plastically deformable since the screw has to hold or fixed two parts together)**

Masuda does not disclose that the position of the unit frame relative to the guide member is adjusted by the rotating the sliding member and the screw portion disclosed by Masuda does not show that the screw portion has a plurality of projecting portion along a circumference thereof and the projecting portions are provided in an area other than a tip end area of the screw portion.

Tsunoda discloses that the position of the unit frame relative to the guide member is adjusted by the rotating the sliding member. **(Col. 2 Lines 50-56 and also Col. 6 Lines 25-35, Fig. 11(A-B) and 12, thus by rotating Element 111b the optical means is adjusted by moving upwards or downwards depending on the direction of the knob)** and at least said projecting portions of the screw portion has a plurality of projecting portion along

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a circumference thereof and the projecting portions are provided in an area other than a tip end area of the screw portion. **(Fig. 12, El. 119- thus the screw labeled 119 clearly shows a projecting portion that gets into Elements 111b, 110b and 114c and that part becomes plastically deformable because when the screw is turned to screw into the elements that is needs to fastened.)** Therefore it will be obvious to one ordinary skilled in the art at the time the invention was made to modify Masuda's optical unit in the flatbed scanner to include Tsunoda's knob used to adjust the level or position of the optical unit so that there will be stability for the gap between the sliding members around the shaft as disclosed by Tsunoda in Col. 6 Lines 40-50.

(NB: The projecting part of the screw is the part that is screwed into the objects that the screw is supposed to hold or fasten together. Fig. 10, El. 119 shows screw 119 and the portion that holds or fastens El. 110e and 114a together is the projecting portions of the screw- thus the not smooth portion of the screw).

Claim 2, Masuda (Column 6 Lines 28-31 and Col. 2 Lines 65-67, and Lines 41-53, Fig 4, Element 24 thus the gap or space is inherently eliminated as the screw is holding or fixing the two pieces together) in view of Tsunoda further discloses wherein play between the screw portion and the screw hole portion is substantially eliminated by plastic deformation of said screw portion.

Claim 3,-Cancelled

Claim 4- Cancelled

Claim 5, Masuda (Column 6, Lines 22-29) in view of Tsunoda (Column 10, Lines 4-7 Fig.12 Element 119 shows clearly the portion where the rotating tool can be engaged to rotate) further discloses wherein said sliding member has an engagement portion to which a rotating tool is to engage.

Claim 6, Masuda (Column 6, Lines 31-33,) in view of Tsunoda discloses wherein said screw portion is made of a resin material.

Claim 7, Masuda (Column 6, Lines 31-33 and 59-64) discloses wherein a sliding portion and the screw portion of said sliding member are an integrally molded resin part.

Claim 8, Masuda (Column 2, Lines 51-59-Fig. 4A shows clearly that the sliding members 21 and 22b and the optical unit 2 move in respect to an orthogonal direction) in view of Tsunoda (Column 8, Lines 27-31, Fig 7 Elements 62a, 62b, 65a, 65b) further discloses wherein a plurality of said sliding members that are provided at respective end portions of said optical unit with respect to a direction orthogonal to a moving direction of the optical member respectively.

Claim 9, Masuda (Fig. 18B and 18C) in view of Tsunoda (**Fig 11, Element 111b**) “wherein said plastically deformable screw portion is provided over such a length that enables adjustment of a position of the optical means by adjusting an engagement position of the screw portion and the screw hole” reads on Masuda’s and Tsunoda’s adjustment of the position of the optical means.

Claim 10, Masuda (Col. 3 Lines 45-60, Fig. 23) in view of Tsunoda discloses an illuminating unit configured to illuminate the original on the original placement portion, wherein the optical element (**Masuda: Fig. 23 El. 369**) has a mirror (**Masuda: Fig. 23 El. 366**) configured to reflect a reflection light from the original that is illuminated with the illuminating unit (**Masuda: Fig. 23 El. 369**).

Claim 11, -Cancelled

Claim 12, Masuda in view of Tsunoda (Fig.12 Element 119 shows clearly the portion where the rotating tool can be engaged to rotate) discloses wherein said screw portion is provided on a circumference surface of said sliding member, and said sliding portion is provided on a tip end of said sliding member.

Claim 13, Masuda discloses an image reading apparatus comprising:
an original illumination member; (**Fig. 23 El. 369**)

a reflection system configured to reflect light from the original **(Col. 1 Lines 29-30, Fig 18, El. or reflecting mirror 176- thus the reflecting mirror reflects the lights from the original to the optical unit) ;**

a scanning member **(Fig. 18, El. 152 or read unit 152)** configured to move said reflection system; a scanning surface configured to be scanned by said scanning member; **(Col. 1 lines 33-40, thus the read unit 152 moves along the scanning direction as it reads the original document)**

and

a plurality of sliding members provided at said scanning member and in contact with scanning surface **(Col. 2 Lines 60-67- thus the sliding member hold scanning members in contact with the scanning surface).**

wherein at least one of said sliding members has a screw portion and a sliding portion that slides in contact with the scanning surface **(Col. 2 Lines 60-67- thus the sliding member or the contact member can be a screw, for example the diffusion plate 255 is fixed on the cover frame 256 by a screw).**

said scanning member has a screw hole in which said screw portion of said sliding member is mounted **(Col. 2 Lines 65-67- thus the diffusion plate 255 and the cover frame 256 has to have a hole in them in order to use the screw to fastened them).**

Masuda does not disclose that the screw portion has a plurality of projecting portions along a circumference thereof, and the projecting portions are provided in an area other than a tip end area of the screw portion, and at least said projecting portions of the screw portion are plastically deformable, and said

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projecting portions and said screw hole engage each other in an interference fit in the axial direction of the screw portion.

Tsunoda discloses that the screw portion has a plurality of projecting portions along a circumference thereof, **(Fig. 10 El. 119 shows the projecting portion)** and the projecting portions are provided in an area other than a tip end area of the screw portion, and at least said projecting portions of the screw portion are plastically deformable, **(Fig. 12, El. 119- thus the screw labeled 119 clearly shows a projecting portion that gets into Elements 111b, 110b and 114c and that part becomes plastically deformable because when the screw is turned to screw into the elements that is needs to fastened.)** and said projecting portions and said screw hole engage each other in an interference fit in the axial direction of the screw portion. **(NB: The projecting part of the screw is the part that is screwed into the objects that the screw is supposed to hold or fasten together. Fig. 10, El. 119 shows screw 119 and the portion that holds or fastens El. 110e and 114a together is the projecting portions of the screw- thus the not smooth portion of the screw).**

Therefore it will be obvious to one ordinary skilled in the art at the time the invention was made to modify Masuda's optical unit in the flatbed scanner to include Tsunoda's knob used to adjust the level or position of the optical unit so that there will be stability for the gap between the sliding members around the shaft as disclosed by Tsunoda in Col. 6 Lines 40-50.

Response to applicant's Remark

The remarks filed by the applicant on 10/21/2008 has been considered but was not persuasive.

Regarding Amended claim 1 and newly added Claim 13, applicant argues that the cited reference does not teach or disclose a plurality of plastically deformable projecting portions along the circumference of a screw portion, nor do they disclose that those projecting portions are provided at an area other than the tip end area of the screw portion.

In reply, Examiner respectfully disagrees because Tsunoda discloses clearly disclose a plurality of plastically deformable projecting portions along the circumference of a screw portion, **(Fig. 12, El. 119- thus the screw labeled 119 clearly shows a projecting portion that gets into Elements 111b, 110b and 114c and that part becomes plastically deformable because when the screw is turned to screw into the elements that is needs to fastened.)**

and that those projecting portions are provided at an area other than the tip end area of the screw portion. **(NB: The projecting part of the screw is the part that is screwed into the objects that the screw is supposed to hold or fasten together. Fig. 10, El. 119 shows screw 119 and the portion that holds or fastens El. 110e and 114a together is the projecting portions of the screw- thus the not smooth portion of the screw).**

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AKWASI M. SARPONG whose telephone number is (571)270-3438. The examiner can normally be reached on Monday-Friday 8:00am-5:00pm est.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, King Poon can be reached on 571-272-7440. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/King Y. Poon/
Supervisory Patent Examiner, Art Unit 2625

AMS
01/08/2008